

The Impact of Urban Construction on Women's Livelihood

A Case of Malir



By: Gul Hassan Kalmati

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Designed and Printed by: **affair publishing house**
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This publication has been made possible through the generous support of Oxfam- Novib, RNE and SDC.

Special thanks to Naheed Rahim for her help in the preparation of this report

FOREWORD

In Pakistan agriculture is a primary source of livelihood for women. The agricultural sector is the only area of work which women can access without any social barriers imposed on them. Women are responsible for the family's food security in the rural areas. In the last few decades women have been increasingly deprived of their sources of livelihoods, and their poverty level has risen owing to inappropriate urban development.

Malir (which means "fertile green area" in Sindhi) is a part of Karachi. It was once famous for providing fruit of the highest quality, vegetables and fodder to the entire country especially Karachi. Agriculture in Malir depends on irrigation by groundwater, collected from wells. The groundwater aquifer was traditionally recharged by the Malir River and its tributaries, which ran only after torrential rainfalls. Besides channeling rain water, the river bed was covered with thick sand and gravel, deposited by the flowing river.

This sand and gravel worked as a percolation medium for the river and rainwater, replenishing the groundwater aquifer through slow recharge. However, sand and gravel are also important construction materials and hence the construction industry has been continuously excavating this natural resource from the Malir River since the 1940's. Excavation soared to alarming levels during the 1980s and 1990s. When this sand and gravel are removed water tends to run off quickly instead of infiltrating the sub-soil thereby unable to replenish the aquifer. Consequently, there has been a sharp decline in agricultural activities, creating poverty and unemployment in the area.

Shirkat Gah has played an important role through its advocacy campaigns to create awareness on issues related to water resources and women's livelihoods. In this context natural resources are facing serious degradation and there is a need to respond to the growing debate about development effectiveness and social and environmental consequences. Shirkat Gah has been working on environmental issues since 1998, and under its current Women's Empowerment and Social Justice Programme (WESJP) it will focus on local efforts to explore ways of preventing further exploitation and protecting the existing resources.

Zubaida Birwani
December 2008, Karachi

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ACRONYMS & TERMS

Aarhti: Commission agent

Agath /azarband: Local belt used in shalawar

Aabadgar: Farmer

Basti: settlement

City Government: City District Government Karachi

Dar: Gate or door

District Council Karachi: District Local Board Karachi establishment in 1900. After Partition General Ayub Khan introduced Basic Democracy System in 1959 District Local Board Karachi Converted to District Council Karachi. President Retired General Parvaiz Musharraf introduced new Local Government System in 2001, according to this system city district/District/Tahsil and Town governments were established.

Deh: Land Measurement unit.

DERA: Drought Emergency Relief Agency

Dheka: Lifting Poin of Stone / Crash / Concrete

EDO: Executive District Officer

Fitrah: An obligatory charity on family member basis to be donated to the poor on the Occasion of Eidul Fitr, a Muslim festival celebrated on conclusion of the fasting month of Ramadan.

Goth: Village

KDA: Karachi Development Authority

Kharo: Saline

Kun: Whirlpool

MDA : Malir Development Authority

Merasis: A clan responsible for coordination of ceremonies.

Metha: Sweet

MD: Managing Director

MQM: Muttahida Qaumi Movement –a political party of Pakistan

Nai: A rainy River receiving water from hill torrents

PML: Pakistan Muslim League

PPP: Pakistan people's Party

Retti/Bajri: Fine sand granule.

Rillys: Local colorful multi-layer and multi-purpose blankets

SEPA: Sindh Environmental Protection Agency

SPO: Strengthening Participatory Organizations.

EXECUTIVE SUMMARY

Malir valley, once lush green, fertile, prosper and source of livelihood for its millions of inhabitants, stands deserted and irrevocably destroyed by the builder mafia of Karachi.

Almost all kinds of tropical and subtropical fruits and vegetables were cultivated by the farmers. Banana, Papaya, Melon, Water Melon, Coconut, Jaman, Black Fig, Date Palm, Pomegranate, Mulberry, Lemon, Chiku, Guava, Berry, Pineapple, Grapes, Wild Apricot, Falsa, were fruits worth mentioning. In vegetables Tomatoes, Potatoes, Cauliflower, Spinach, Chillies (Malir, Shimla & German species), Dhania (coriander) Salad or lettuce, Carrot, Peas, Beans, Kidney Beans, Cucumber, Okra, Eggplant, Onion etc. while in cereals Wheat, Maize, Bajra, in fodder Lucerne (Alfa Alfa), Barseem, etc, and in flowers Rose, cut flower, Jasmine etc were common.

The green, peaceful, clean and comfortable environment was recommended by the doctors for the patients with asthma and tuberculosis and other illnesses. Malir inhabitants were healthy with strong physique and no sickness whatsoever was reported. Therefore people led happy and prosperous life with no crime reported. For its sprawling green valleys and grazing ranges, Malir used to be teeming with livestock as the people maintained livestock farming on commercial scale in addition to agriculture which was the mainstay of the Malir economy. Malir Red Cow reared all over the world hails from this area. She is genetically adaptive the way that she can supply abundant milk even on smaller supply of feed. Malir remains the major source of food and water supply for Karachi city and till today bulk of the food supply is from Malir. Only the wandering beggars and the wedding arrangers (Merasis or Manganhar as locally called), looked for the Zakat, alms and Fitrah etc Till 70s agriculture was the mainstay of Malir and its population was healthy, prosperous and rich enough so much so that looking for job was considered a taboo let alone the begging for Zakat.

Women had equal role in Malir's prosperity in its heydays, for their contribution and share in the over all infrastructure and working, where, at times, they worked even harder than their male family members. They are worst hit as a single group after the catastrophe caused due to the shortage of water. They cannot move to other places for the prevailing traditional socio-cultural barriers in their mobility. Their alternative livelihood from the domestic handicrafts and stitching dresses does not fetch good market price. Government does

not offer employment opportunities. Where they are employed like in lower jobs in health, vocational training centers they are working on renewable contracts basis, lacking job security, they are at the mercy of higher officials who harass them and deduct their salaries.

Malir today shows definite signs of ecological degradation. She has lost most of her lush green ery, which in the Past had earned the epithet of fertility and her green ery has become more of a legend than a reality.

The details of the situation in Malir described in the following page swill apprise the readers of the pathetic living conditions and circumstances caused due to the indiscriminate excavation of the Riverbeds in Malir area.

The feedback on this work will be highly appreciated.

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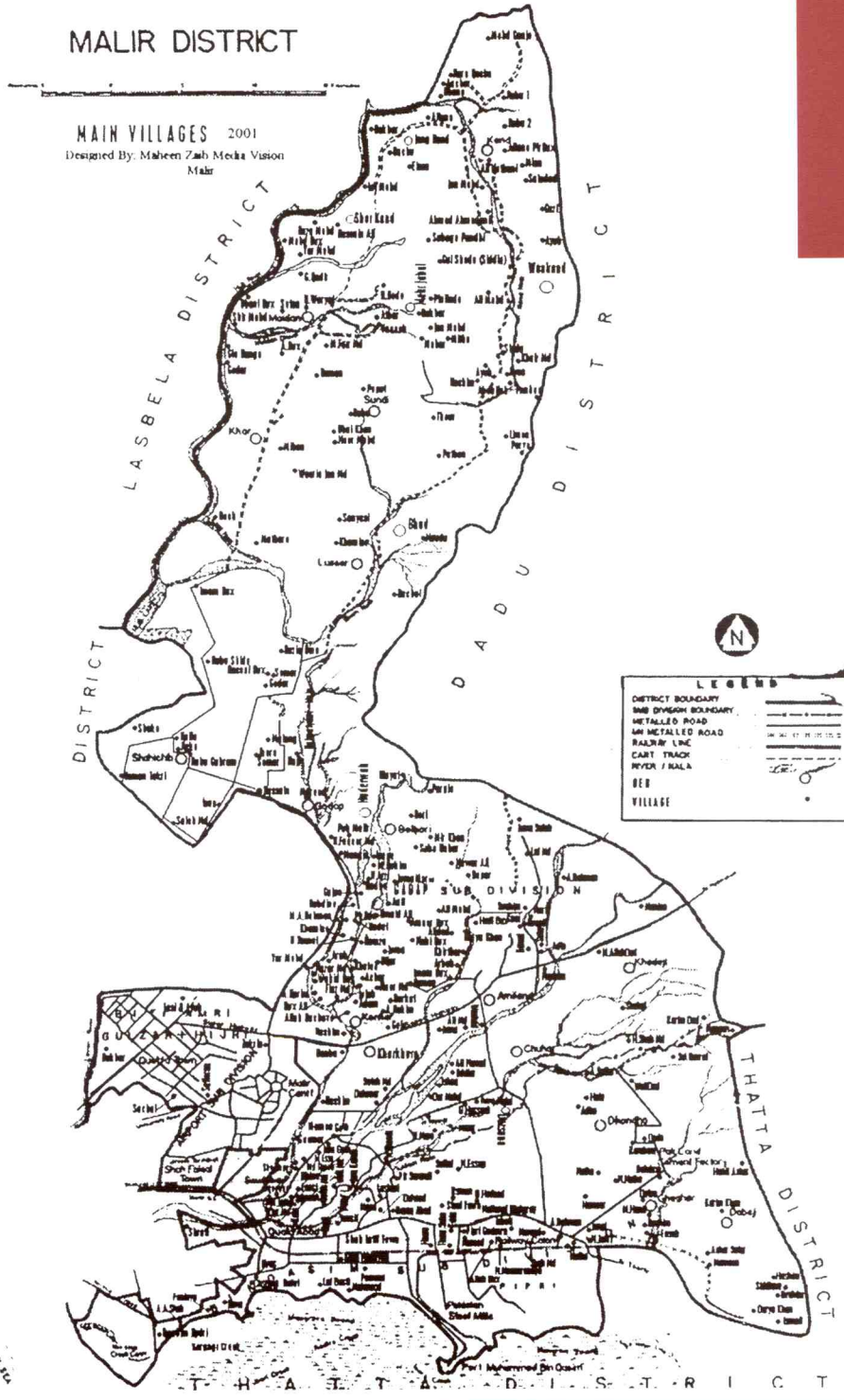
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MALIR DISTRICT

MAIN VILLAGES 2001

Designed By: Maheen Zah Meeka Vision
Malir



Historical Background of Malir:

Water is the basic requirement for life and agriculture. Life did exist even before the civilizations came into being. Agricultural era made people do away with the nomadic lifestyle and built settlements on the banks of Rivers, lakes and coastal areas. Egyptians, Byzantines, Chinese and Sindhi civilizations owe their existence to Rivers.

Ancient artefacts are also found around Malir Rivers, Lyari, Hub, Sakkan, Thado, Konkar, Khadeji and Bakran Rivers. There are evidences that all of those Rivers/nais flowed round the year and the water attracted human beings to live on the brinks of those Rivers.

One can assume about the Malir's historical standing that from Damloty to Memon Goth up to the junction of Langheji and Malir Rivers, relics of life have been traced through an archeological excavation back in the years 1973-74. . These artefacts were named after the village of Allahdino Jokhio. The archeologists also found the seals with unicorn figures. On the whole relics of three eras have been found. Archeologists opine that the seals found here have same the animal pictures as on the seals found in Harapa. There are some signs that people used to grow cotton which is still in vogue in the area. When the army of Alexander the Great crossed the region, this area was cultivated through the wells.

Dr William in his book, "*The Commerce of Ancients in the Indian Ocean*" states that "Alexander's General Nearchus, after successful expedition on sub-continent, on his way back, stayed in the suburbs of Karachi on October 8, BC 326. At that time the place was called as Kro Kolla means Crocodile den". Araen who accompanied him, in his book *The Learnings of Alexander* states that, "While crossing Arbes River, which was rather a hill torrent, around the dawn they reached a habitation where he (Alexander) reorganized the army. They also took rest for a while near a River".

Arbes River is, in fact, Hub River. Alexander's army crossed Malir River and the place, where they rested was surely the Lyari River. Araen further writes, "The place where the army crossed the River, there were wells made to fetch water for consumption".

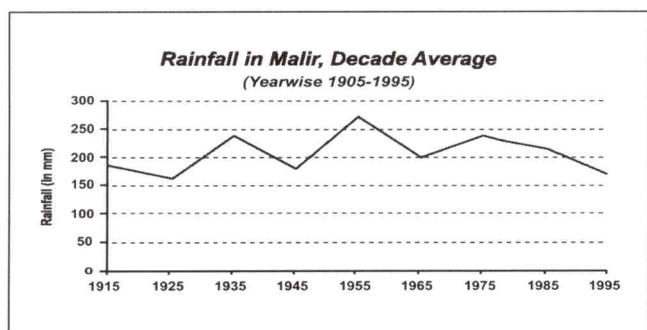
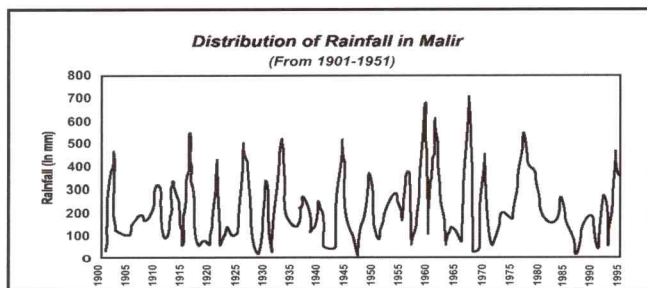
Mr. Bhojo Mal, a businessman, used to do business at the Kharrak port near the Hub River delta. When this port was inundated and damaged due to the sand from Hub River, he shifted his business to present

Karachi coast. He settled down on the older branch of Lyari, where there used to be "Whirlpool of Kalachi", Kalachi jo Kun, as locally called.

They established homes and fortress for safety. The fortress had two gates, one towards sea, called Kharo Dar (Salty Gate) and the second was towards Lyari called Mitho Dar (Sweet gate). That gate opened to a large number of sweet water wells. It was year 1729. The people in the city still call these gates with same names. The well water was used for agriculture and people used that water for domestic consumption.

Historian Naoonmal in his popular book *Memoirs* writes, "that around 1792-93 Mir Fathe Ali Khan sent 15000 Balochs to take over Karachi. They were equipped with artillery and explosives. Karachi at that time was under Khan of Kalat. The military established their makeshift cantonments in the north west of Lyari River"

Many travelers, who visited this area during the Talpur rule, have



mentioned in their travelogues the wells and gardens in Lyari and Malir. Among them, Mr. I. N. Ellen writes, "The first view of Karachi is pretty unattractive, ... However, both the banks of Lyari River are lush green. This belt also has orchards and gardens. Only that area is worth seeing and gives soothing effects to the eyes"

Alexander F. Belly in 'Kurrachee: Past, Present & Future' writes: "Malir, in the suburbs of Karachi is green, fertile and

prosperous. However, people had no trend to cultivate the wheat. In fact people rejected wheat due to over taxation. By practice they are supposed to pay around thirty three percent of yield as state tax. Growers hardly had savings given the cost of inputs. On the contrary there is no taxation on fruits and vegetables. Therefore, Malir's growers concentrate more on the orchards. Most of the growers are Baloch"

Richard Burton in his book *Scinde or Unhappy Valley* writes about Malir River: "I don't know about its name, I even don't know whether waters flows through, however, during monsoon, hill torrent water quantum could be carried by her and drain water splashed and overflowed and inundated surrounding cultivated lands and orchards. At that time muddy water passes through it.. In winter it is without water. You can see many water pools and on some places people dig wells to for drinking water". He further writes about Lyari River gardens, "Karachi is surrounded with orchards and gardens. These have been established on the behest of government as there are no recreation places around. The area also has plenty of sweet water. Most of the farming lands have large numbers of wells, therefore, the place has pleasant and scenic look".

These travelogues and write-ups reveal that Karachi coast had small and large ports and coastal villages and in the surrounding i.e. in Malir and Lyari had agricultural economy.

The availability of water in wells and agriculture was possible for the reason that during those eras Lyari and Malir Rivers had considerable layer o sand and gravel in their bed working as sponge and filter that retained the flowing rain water through gradual seepage. The rain water was trapped through sand and fine sediment and it mixed with the ground water and improved water quality and the same water was harvested through the wells and utilized for agriculture as well as human consumption. Till the year 1945, Karachi city was supplied water from the wells on the banks of Malir and Lyari Rivers.

People received water from the same source till the British Army invaded the country. When in 1852 Municipal commission was established, already about ten wells were made available by the philanthropist in the town. Municipal commission too sank five more wells in the area in 1854. Water supply was initiated in 1856 through Mr. Brinton's Scheme. Apart from those wells the first water supply scheme was started at the cost of eleven thousand rupees from Lyari River through Gallery system. After the completion of the scheme a report suggested to the government that in order to secure sustainable water supply from Lyari River it is indispensable that the Lyari River bed sand should be managed not to flow in to the sea. The importance of sediments can be ascertained from that report.

As Karachi expanded its increasing population required to plan for additional water supplies. From 1854 till 1867 proposals were invited from different experts. Among them included:

- Captain Baker and Mr. Haal's plan to dig water at Memon Goth and Jam goth on Malir River.
- Mr. Delsly's plan to take water from Damloti on Malir River located at 16 kilometer from town.
- Mr. Brinton's plan to dig water from Damloti area on Malir River located at 23 kilometer from town
- Mr. Nothem's plan to bring water from Indus River
- Mr. Murad Khan's plan to bring water from Hub River

In the year 1868 all these proposals were thoroughly scrutinized and studied for their feasibility and implementation. The proposals of Mr. Brinton and Murad Khan were considered feasible for their estimated lower cost. The first modern water supply scheme from Dimloti wells on Malir River bank was inaugurated by than Judicial Commissioner Mr. Bird Wood on April 21, 1883.

Twelve wells were dug from the first Dimloti well to present link road on right bank of Malir River. Initially water was supplied from this point through cement pipes which were replaced with steel pipelines. All those wells were prepared and bricked with beautiful stones. Heavy diesel engines were installed to pump the water out. Those heavy engines were still working till 1980s. The accommodation quarters for the workers built 125 years back still present a scenic view. The water supply system was sophisticatedly operated maintaining hygiene and environmental standards, so that water quality remains worth consumption. In 1911 those wells supplied 40 million gallon and in 1935 about 80 million gallon to Karachi on daily basis.

Unfortunately, after partition, those installations, the beautiful legacies of the past, were made redundant and treated carelessly. As a result, they are gradually vanishing. Still seven wells have survived out of which two wells; No 2 and No 6 are still functioning and daily supplying 10 million gallon water to Karachi.

These facts imply the importance of Lyari, Hub and Malir Rivers. In addition, it also shows that these areas had significant agriculture and livestock. With the exception of port settlements and coastal village, rest of the present Karachi was an agricultural region. The inhabitants mostly depended on agriculture and livestock for plenty of rainfall provided abundant vegetation and grazing fields.

The excessive theft of sedimentary material: sand and gravel for unnatural expansion of Karachi city has rendered Lyari and Hub Rivers worthless and these Rivers have almost vanished. Lyari River, barring few kilometers, has turned into drainage to carry the domestic and

industrial waste and spew it into the Arabian Sea. Hub River was facing the same ruthless treatment at the hands of construction mafia, which quarried the River bed to harvest sand and gravel for Karachi's planned housing schemes as well as mushroom settlements.

The Hub Dam has proved lethal for Hub River as it stopped downward flow of water. Lifting of that material from Hub Dam up to the delta has resulted in damage of fertile agricultural lands and grazing fields for livestock and the wild life. The residents are compelled to migrate in search of livelihood. The water is mostly pumped out to Karachi for consumption. In case that water is regulated and provided for agricultural purposes, large belt of agricultural lands can be revived and reclaimed.

Most of the agriculturists and farmers working to this side could have survived had the designers carefully designed the development strategies. Unfortunately, the people at the helm of affairs had nothing to do with the indigenous people and agriculture, therefore their ill planning turned the fertile lands of Deh Hub, Deh Band Murad Khan, Deh Loharko Langh, Deh Mandro, Deh Mahi Garhi, Deh Halkani, Deh Mangho Pir and many Dehs of Tapo Gabopat turned in desert. This followed builder mafia started capturing those lands for different housing schemes. In the proposed Karachi Vision 2020, new settlements and societies have been planned to accommodate the uncontrolled population explosion.

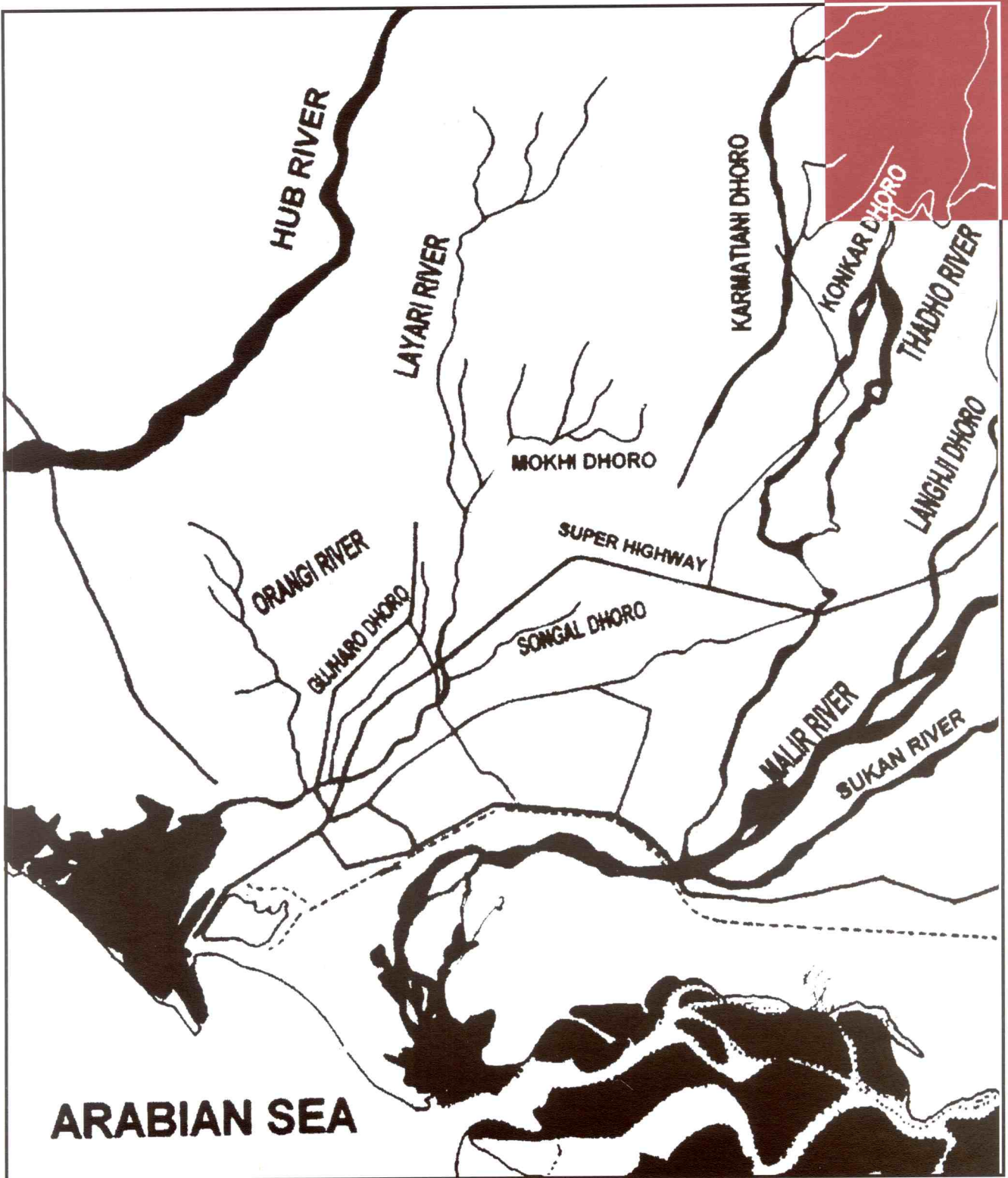
The farms and orchards on banks of Lyari River have turned into high-rise buildings and plazas. From rest of the areas local agriculture community was pushed away to replace Gulshan-e-Maymar, Surjani Housing Scheme, Khuda Ki Basti and Taisar Town etc.

Agriculture and farming was mostly concentrated around Malir, Thado and Sukkan Rivers where these days we see the Malir valley settlements.

Mr. Dad Mohd Baba, a respectable individual of village Nooruddin off Malir city Station is still involved in agriculture but he cultivates lands in Windhar in Balochistan instead of Malir. According to him" Malir valley



DETAIL OF DEHS IN KARACHI



FAMOUS RIVERS, LAKES AND PONDS OF KARACHI

from Malir City Railway station till Malir River all was excellently cultivated agriculture lands till 1965. Where even today the villages of those growers like Siddique goth, Nooruddin goth, Haji Dad Rahim goth and Juma goth still exist. Residents of all these villages depended on agriculture. He further reveals, "When my father Nooruddin Baloch invited Quaid-e-Azam in Malir, large number of peasants, farmers, landlords and workers warmly welcomed him, the only request placed before him was that cheaper potato seed should be imported from abroad. Economic rates on potato seed would encourage farmers to cultivate the crop on large scale. No other demand was made. Elders still remember that reception for Quaid-e-Azam in football ground surrounded with of Date trees in Sahib Dad village." He further elaborates "My fathers maintains that people of the area were so contented and affluent that they asked nothing from the head of new state just imported subsidized potatoes seed. Quaid-e-Azam liked the area most, to the extent that he preferred to stay at Bahawal Pur House and Bhopal House in Malir. He acquired few acres of land to build his residence. Even for rest of his life water for his consumption was supplied from the wells of Malir"

Regarding the good days of Agriculture elder Haji Allah Dino Jokhio of Sukhya goth states "Before partition, all the area from Sukhia goth, Dilbod goth till Malir city and towards Model Colony all the area was cultivated, covered with lush green fields. Various fruits like papaya, mango, cheko, guava, coconut, dates, farva/falsa¹(*Grewia asiatica*), Banana etc and all kinds vegetables were grown in the area. Shop keepers in Malir bazaar, fertilizers, seeds and vegetables, also depended on agriculture. Mostly shops were managed by local 'Khojas' and 'Dewans' but the rural business and cultural activities gradually faded after the Partition. With the degradation of agriculture, all the other related activities also dwindled. Local people migrated to other places in search of livelihood. The lands of Malir area were allotted to the migrant refugees from India. As a result, the centers got shifted from Malir to other areas.

Malir valley includes Ibrahim Hydri, Bin Qasim, Malir, and five Union Councils of Gadap. It was all an agricultural area. Even today, somehow around 65 percent of population of Gadap and Bin Qasim Town depend on agriculture. About 90 percent of women depend on agriculture and livestock for their livelihood. Till 1960s, hundred percent of the population of these areas depended on livestock an agriculture.

¹ Falsa is a dark purple berry popular in subcontinent with a sour/sweetish taste used in salads, pickles and juices

Before the Partition, Malir was a lush green valley, self-sufficient in fruit, vegetables, fodders and with abundant grazing fields. People were affluent, and happy. They still miss that the greenery and the good days of Malir River. In retrospect they discuss the former hey days as they discuss romantic love stories. The aura of those rich days can be heard by just asking an inquisitive question from the older generation, they will illustrate what looked a dreamy world but with logical facts and carry truth. They still love what ever remains and wish to revive the good old days. They have feeling whatever remains, they are losing it very fast as it fades, rots, and vanishes before their eyes, while they look helplessly as they have no say in decision making about the fate of Malir.

Historical Role of Women in the Agriculture of Malir

Historical accounts, socio-cultural and anthropological discourses describe the fact the male and female were equal during the stone age. They hunted together, and made weapons from stone together. Land became an important source of production in agricultural societies. Land produces food as a mother produces children and multiplies human generation. Therefore, Land was given the byword of Motherland. From old caves, the archeologists have found the statues of women in the ancient societies, in some of which the woman has been shown as a goddess of the land. Livestock rearing is also supposed to have been initiated by the women folk.

Historically, the women in Malir played a significant role. They stood shoulder to shoulder with male family members in all agricultural related activities, from land development to irrigation, plantation to transplantation, crop protection from birds and animals to harvesting and packaging; from processing to the transportation of the products to the market. In addition, she prepared food and drinks for whole of the family, nursed the infants, fed and milked the cattle and goats and, maintained the house and cattle yard, took the herd to the grazing fields so on so forth.

Ms Rahmat, a peasant lady working in village Arzi Baloch, describes the situation in these words: "Women work in the fields with the male for equal hours, and all the task handled by the men are done by the women but they are underpaid. If a man is paid Rs.150/ to Rs.200/ a woman is paid from Rs. 70 to Rs. 100 for the same task. This is utter injustice with women".

Ms. Zohra, aged 60, working in the same land states that "Women work harder than the men. A woman would come at 8 o'clock with the man on fields, she would works with men till 1 o'clock. After that, the men may go either to a tea shop for refreshment or home to relax but the lady would return home to cook food for them. In the morning she provides fodder to the cattle or arranges their departure to the grazing field than she prepares breakfast for the children and sees them off to school, followed by house keeping and arrangement of potable water before departing for the fields". She further elaborates, "After they finish work at fields around 5 pm, the men get free but the women have to arrange fodder and grass for the cattle, milking, house cleaning, evening shift of water storage followed by cooking of night

meals that ends when every one goes to sleep but she still has to wash the pots and utensils before going into bed.”

The women of the land owners and sharecroppers work without any wages. After serving meals and settling children into bed, they carry on stitching work too. Malir culture allows women in their choice of selection, designing, stitching of clothes. Women prepare dowry of their daughters, particularly the dresses. During heydays of Malir they were happy even working for 16 long hours, because they were economically and financially self sufficient.

Ms. Hajjani Mah Bibi of village Haji Yousuf Darsano Chano narrates her story saying, “Since childhood we are linked with agriculture. We work with father and brothers and barring the land ploughing and irrigation all other works like transplantation, harvesting, picking are done together. We never thought of wages while working with the father who was an owner and peasant simultaneously. We all used to leave for fields early in the morning and return to home by sunset and prepare meals for the family”. She further elaborates “Mostly the crop picking work like chilies, eggplant, tomatoes, cauliflower, peas, falsa, cucumber was the responsibility of women. Even today that work is done better by the women as compared to men.

Ploughing of land, preparing irrigation tranches and branches, embankments etc, were the men's domain but the sowing, transplantation and harvesting was women's tasks. Water was abundant; whole the area was fertile and green. Every woman had employment opportunity on her door step and there was nothing to feel worried about. After marriage same activities were carried out with husband at his personal lands or where he worked as sharecropper. Now, when my husband is no more these lands are taken care of by me and my brothers in-law. During good days, every third day one Papaya truck was loaded for market from those lands and now only a pickup or smaller Mazda truck is loaded only twice a month. Good crop of Podina (mint) and Dhana (cardier leaves) could be seen in the past but now-a-days, the farmers avoid these crops due to shortage of water. Previously the crops fetched good price, but now-a-days despite increased input costs, it fetches much lower market price”.

Haji Pir Muhammad Baloch agriculturist and social activist in village Dur Mohammad Darsano Chano, opines about females' role in Malir's agriculture. According to him “The story of Malir agriculture is incomplete without women. She has historically 60 percent role in

agriculture and even today she has similar contribution even today. Firstly her wages are comparatively lower and she works hard as compared to men. On other places where she works on the lands owned by the family, she works wage free. Secondly where most of the places her husband stays away from home due to marketing of crop or other reasons, she is solely responsible for her fields". He further elaborates "it is a historical fact that in agricultural society women are more responsible, committed and sincere in their professional activities. In Malir most of the widows were linked with agriculture for employment. They used to work as laborers or sharecroppers to earn their livelihood for the family. From that employment, they could comfortably earn for their children's education and arrangement of marriages. Therefore there was no tradition and dependence on alms. But due to the shortage of water and significant decrease in agriculture all such women have been badly affected".

Mr. Shafi Mohammad Baloch, of same village who also represents Wadhela Baloch Welfare Organization opines, "Before partition, agriculture was predominant profession in Malir. Both males and females used to work together. Women were treated with respect and dignity. They felt secure. Although males and females from different places worked together, it was socially acceptable and all men respected women from all communities. They all worked together as a family and socialized together in their events of sorrows and celebrations. This harmony was possible only due to the agricultural ways of life. The strange social evils like mistreatment of women and honor killing were never heard of in Malir in the past and during present times. Where agricultural way of life has vanished such and other social crimes have crept into the social fabrics. The credit for such a social stability goes to women who, despite lack of education and exposure, dared to work shoulder to shoulder along with male workers in the fields."

Agriculture Production in Malir and Women's Contribution

Malir's soil is very fertile and suitable for almost all kinds of fruits, vegetables, salads and spices. There is no canal irrigation system and water is pumped from wells for crops. Quarrying of sand and gravel from River bed has deprived the River of sponging absorbing capacity therefore under ground water has depleted from most of the places. On some places water level is deep underneath from 400 to 500 feet. Therefore agricultural production has shrunk by 70 to 75 percent. One reason for this reduction is degrading quality of underground water. In Deh Landhi and Deh Thano sea water has leached and its seepage has mixed with sweet water and it is this brackish water that is utilized by the farmers for the crops requiring sweet water.

Once when plenty of water was available, farmers used to cultivate Papaya and Banana crops with good quality fruits. On this scenario Haji Pir Mohammad of village Dur Muhammad states "People of Malir pioneered in Banana crop among the farmers in present Pakistani areas. After partition, large numbers of Banana orchards dominated the landscape. These plantations were so dense and high that they gave the look of a dense forest and one would think twice before entering these green and dense plantations. When the water supply shrunk, those crops were shifted to Thatta followed by other parts of Sindh where farmers are successfully growing them. However, experts opine that the Banana cultivated in Thatta and Malir is delicious and ranked on top in taste as well as has longest shelf life. Now-a-days you hardly find the Banana plantations although before 1980s about 200 to 300 acres of Banana crop was grown in each locality in Gadap, Malir, Darsano Chano, Kathore, Landhi and Deh Malh. One truckload of fruit was harvested fortnightly from each acre. Those lands were also used to grow Papaya, Maize and vegetables as Banana takes one year to mature. Tragically, now only 15 to 20 acres of cultivation can be seen and shortage of water has negatively



affected its quality". He further narrates "In Pakistan the crop of Pan was first introduced in Malir. Best quality Pan was cultivated in Darsano Chano in the lands which have been turned into Poultry states. Water shortage has compelled farmers to switch over pan crop to Thatta. Malir farmers are pioneers in both Pan and Banana crop cultivations. Women play important role in Banana plantations. From pruning of Banana leaves to harvesting and shifting of banana fruit bunches were carried by women. In Pan Plantations from transplantation, cutting, pruning and cleaning jobs were solely done by women".

Haji Ghulam Mustafa once a prosperous farmer of Gadap narrates the current cropping patterns as, "where there is irrigation water available nowadays farmers grow Chiku Naseberry (Achras Sapota) (Sapodilla), musk melon, Soofi ber, lemon, guava, mako, coconut, sharifa (custard apple) and in some areas of landhi and Darsano Chano Papaya is also cultivated. The vegetables grown includes cucumber, pumpkin, tomato, peas, cabbage, cauliflower, turnip, spinach, chillies (Malir, Shimla and German varieties), Walor, (bitter gourd) karela, onion, radish, sweet potato etc. Also wheat, maize, Bajra and in fodders Lucerne etc is grown these days" He further reveals "Shortage of water has destroyed the mango crop from area. The sprawling orchards fetching million of rupees have shrunk to small number of trees producing fruits only sufficient for family consumption. Other crops that have vanished due to water shortage include pineapple, pan, Banana, cotton, falsa (Grewia asiatica) etc. Jojoba is also decreasing very fast in term of size and quality. Wheat requires water therefore its plantation has decreased. However shortage of flour a few years back has encouraged farmers to revive this crop. Maize and Lucerne of Malir Valley was popular fodder and grass loaded truck caravans were sent to grass markets but now only 5 percent of these fodders is grown these days. Popular guava and seetaphal crops have decreased to 5 percent only for their requirement of plenty of water. In addition to water shortage increasing input cost of chemical fertilizers, seed and their non-availability also have contributed towards damage and extinction of those crops".

As already mentioned, traditionally women played significant role in Malir's agriculture. Therefore decrease in cultivation of crops, fruits and vegetables has badly affected women of this area as single group and they are worst hit as compared to men. The picking and harvesting of almost all fruits and vegetables was done by women. In addition, transplantation, cleaning etc were sole domain of

women. Decline in agriculture production has deprived women of all such related jobs. According to Ms. Rahmat of Gadap baring land plowing, irrigation, embankments and trenches, all difficult, technically and sophisticatedly micro tasks are performed by women. She claimed that the tasks difficult to handle by men are assigned to the women. In wheat crop, from harvesting to collection of sheaves to the thrashing site are done by women. Radish harvesting from deep soil is difficult, thrashing of seeds from the crop and packing the sacks is done by the women. They work more at smaller wages therefore farmers prefer to hire women for those tasks. It is not justified but is compulsion for women, as no employment opportunities are available in the vicinity for them. Washing the carrots in cold water in winter for many hours is difficult task unthinkable by the most of the people for its tiring and exhausting nature".

Destruction of Malir and it's Consequences

The major cause of damage of Malirs' agriculture is digging and lifting of sand from River bed. All the farmers, agricultures and technical experts agree on the point that the sand and gravel supplier mafia, in connivance with administration and some local farmers, are behind the destruction of Malirs' agriculture.

Haji Pir Mohammad and Shafi Mohammad Baloch, expressed their anger in this regard that "Although low rainfall and the government policy had badly damaged the agriculture, but the maximum damage has been caused by police and builder mafia. Even today where the Riverbed has not been dug, the areas in the vicinity are green and cultivated. The areas where River bed has been dug, are deserted. Non implementation of laws, lack of accountability and punishment has encouraged builder mafia to carry out their unlawful activities". They further elaborate "The intrusion of refugees, unhindered and unplanned construction and encroachment towards Malir has proved lethal for Mailr.

During the 60s, Deh Digh, Malir city side of Deh Thano, Deh Sharafi, Deh Gangiaro and Deh Khanto were all cultivated. Government of that time with malicious intentions declared those lands as vacant lands and allotted those lands to the refugees migrated from India during the Partition to establish housing schemes. Simultaneously such massive construction required large quantity of sand stuff which was dug and lifted from Malir River and till 1970s that damaged the cultivated lands and natural ecosystem downward Malir bridge, that was used as gutter channel to drain out the urban waste. On other side from Sukhiya goth to airport on the banks of Thado Nai Rainy River colonies were established to settle the incoming refugees at the cost of destruction of agricultural lands. During 1960s from that portion of Thado River gravel was lifted which caused massive



damage to the agriculture.

Mr. Haji Allah Dino Jokhio, Vice Chairman of of Malir Abadgar Welfare Society revealed that "I am myself eyewitness of the greenery and prosperity of Malir, Khokhrapar and Deh Thano. This whole area up to Malir city and across Malir railway lines up to Malir River was lush green having dense orchards of mangoes, dates and guava. But the intrusion of refugees and lifting of sand from River bed destroyed the whole area. Pure natural River water was replaced with cesspools and gutter waters and cultivated lands converted into makeshift settlements. When local people lost their livelihood, they headed towards other places".

He further elaborates "When sand lifting from Thado River started during last quarters of 1960s many people opposed it. We could not comprehend their opposition at that time therefore it could not get larger support. Today's pathetic situation is the ultimate result of the social crime that started in those days. In the rest of Malir areas like some portion of Deh Thano, Deh Malh, Darsano Chano, kathore, Gadap and Shahi Chib where still main employment sector is agriculture cultivate only 35 percent of agriculture of its ratio in 1985 when it was hundred percent agricultural economy.

The main reason for this decline is the same, the low rainfall and lifting of sand. In addition, the greed for capture of lands also worsened the situation. Cutting of forest trees has further aggravated the situation. Malir's soil has the quality and capacity to grow all kinds of fruits and vegetables. In the absence of barrage system water for agriculture is pumped out through wells. The digging of River has deepened Riverbed 15 to 25 feet deeper than the land surface. River has lost water absorbing capacity due to lifting of sponging sand. This has lowered the underground water level as deep as 400 to 500 feet. Farmer need Camber Sable deep drilling machine to pump up water which requires heavy cost, unbearable by the poor farmers. The water sucked up from the depth of about 400 to 500 feet is mixed with different minerals and salts that have degraded the water quality rendering it unfit for agricultural utilizations. The underground water in most of the areas contains 1000 to 4000 PPM impurities as a result it has not only decreased the production, but also turned lands saline and water logged. This water is harmful for human consumption and, according to one report released by Agha Khan Hospital, people of Malir have larger number of Hepatitis B and C patients as

compared to the people of other areas of Pakistan. Unfortunately, the women make the large portion of that affected people

Mr. Shoaib Hanif, a former teacher at Dawood Engineering University and presently consultant on different check ware dams on the Rivers in Gadap opines that "One analytical report on the sand in Malir Rivers reveals that it is best quality filtering fine stone having best filtering and absorbing capacity. Therefore seepage through that sand into the wells is best suited for consumption. It is like a mineral water. Malir River has additional quality in building construction that it results in strong construction despite small quantity of cement. Therefore the architects and builders prefer the sand from Malir River for their construction projects". According to him "Lifting of about 70 billion cubic feet of sand from Riverbed has caused enormous damage. Due to smaller rainfall, the rain water can not cross the deep ditches dug on various sites. That also causes damage to River banks causing splash and water inundates the settlements and villages" The scale of the catastrophe is so high that it requires thousands of years to compensate the loss and damage done. However he is hopeful that "If the correct measures are adapted, we can save Malir through construction of smaller Dams. He supports his arguments by illustrating the check wares established by GadapTown on Malir River at Dimloti, Check ware on Jirando River in Kathore, Kurkutti Check ware on Thado River near Haji Arzi village, and check ware on Lat Karmatiani which are producing good results.

These four schemes established by a small organization with economical budget have brought a revolution. Therefore government needs to plan more such dams to save Malir.

Every one in Malir; a peasant, a farmer, a student and common people are directly or indirectly dependant on agriculture. Not only the landlords and sharecroppers but the tractor dRivers, wage workers, vegetable truck loaders, transporters of fertilizers, pesticides, shop keepers and



venders, the donkey cart owners, ironsmiths, hotel and restaurant

owners and large variety of public living in rural areas are dependant on the prosperity of agriculture. Large size of women folks are also employed in agriculture sector. The destruction of agriculture is more harmful for women as the males somehow manage to find employment somewhere else in other professions and places but the women have the problem of mobility due to the customs of semi-tribal society and they lack skills in other professions. They can not move to other employment sectors and find other technical jobs.

People of Malir Valley have been continuously protesting against the illegal lifting of the sand from the River bed since 1970s. This prolonged agitation and protests compelled the administration to promulgate the section 144 on lifting of the sand. However; unfortunately this ban has had no impact on the police and material supplier mafia. Ironically, it has provided a pretext to police for minting more money through extortion and bribes from the lifters and loaders. This area is reported to be fetching billions of rupees yearly and police enjoys it with impunity. Circumstantial evidence imply that the bribes thus collected are distributed through all the administrative layers from bottom to top and according to the credential sources the police stations head posts of PS Gadap city Memon Goth, PS Sukhan, PS Gulshan-e-Maymar and PS Shah Latif are sold in millions of rupees and only police officers having access to Chief Minister's or Governor's House are posted on such lucrative posts. However; in exceptional cases when honest and credible police officers were posted as Town Police Officers, they strictly implement the ban on sand lifting during their tenure. People of the areas praise Mr. Siraj Lashari, SHO, DR. Ghulam Mustafa Kalhoro Mr. Ghulam Nabi Memon, TPO, Mr. Iqbal Dara, Mr. Younus Dhaga DC, Mr. Sanaullah Abassi DIG, Asad Islam Mani and Choudhry Waseem Ajmal, Sub Divisional Magistrates etc.

They fully controlled the lifting the sand and gravel whenever they got posted here. People illustrate their commitment and administration by narrating that not a single donkey cart got loaded during their tenures. And that the thieves used to flee the area.

In 2002 the most effective voice against this illegal business was rose by Shaheed Abdullah Murad Member Provincial Assembly at that time. He managed to get an ordinance passed in Sindh Assembly against the illegal lifting. According to Mr. Hussain Sagar a social activist, that despite implementation of 144 Act the theft and lifting of concrete continued. The Mineral Department, Government of

Sindh, is now more involved and they issue legal leases of lands and Riverbeds to lift the concrete material. On the other side Frontier Works Organization (FWO), a subsidiary of Pakistan Military has been lifting material on the pretext of building Lyari Express Way and Northern Bypass. They even continue lifting during the period the work on Lyari Express Way had halted. Hundreds of trucks having banners of FWOs continue lifting the material without accountability. The thousands of tones of the stuff lifted by them are reported to be sold at Sohrab Goth sand market.

When local people protested against them, the police used live bullet fires against the public, and registered fabricated cases against the representatives of local people. Even Mr. Abdul Hakim Baloch, a former minister, was blamed for burning a dumber truck.

As the material supplier mafia have reportedly deep-rooted patronage of individuals in ruling echelons and it is well entrenched, the local people, farmers and peasants are fearful of them and avoid confrontation with them. The influential contractors have deployed armed groups on the material lifting points who constantly harass the people living in the vicinity, especially, the protesters.

There are five major material lifting points for Karachi Mega City construction. These points are: Malir, Thado, Sukhan, Hub and Lyari Rivers. In addition, Jarando, Lanhgeji, Konkar, Lat and Khaar Rivers are also the sources. Lyari and Hub Rivers have already vanished. Malir River is gradually disappearing from Dimloti to Malir bridge. Sukan River, too, is facing the same fate. From the Link Road up to Malir River junction it has disappeared. Instead of River, one can see scores of ditches up to 20 to forty feet deep. Thadho River too for about 22 miles from Gadap to Deh Konker and Malir Bridge has been dug and emptied of fine crash and stones.

Konkar River from Gajan Khan Village Gadap till Damba Goth on Super highway faces same situation. Only few patches in these Rivers remain intact but mafia is bent upon destroying those spots too. After the mafia has obliterated those spots, too, the area will be literally converted into the desert. Because the areas cleared of the fine sponging sand stands damaged and gives a look of desert.

According to a survey conducted by Geography Department, Karachi University when hill torrents reach to plain lands the congested bottlenecks in Rivers decreases the speed and power of

water flow and the water circulates around and gets absorbed in the soil and replenishes the underground water.

The tragedy of the remaining agriculture is Semer Sail Pump tube wells run on electricity. The pumping motor of 25 to 30 kilowatt pumps up 375 gallons water per minute. As water is deep it can only suck 20 to 25 gallon water. Mr. Rasool Bux Baloch, Managing Director of Malir Aabadgar Welfare Society express that "After prolonged and repeated correspondence KESC technical experts in 1997 undertook an experience and submitted a report about the power consumption of tube well pumps. They mentioned that a crop in forty days requires six irrigations and Rs 18744 are incurred as electricity charges.

This cost is drastically higher than the electricity charges of Rs. 200 to Rs. 300 per care in nearby Thatta district in Sindh and Lasbella district in Balochistan. After 1997 the electricity charges have been raised more than hundred percent". He further reveals "KESC Flat rates in Malir are much higher as compared to KESC energy charges. In Malir KESC collects Rs 10 per unit which is unaffordable by the growers. Due to this the investment cost on agriculture production is much higher than the rest of the country. Therefore the fruits and vegetables cannot compete with the products supplied from interior of the country to Karachi fruit and vegetable market. The growers are compelled to sale their stuff on lower rates as the stuff from upcountry despite lowered price, fetches good profits owing to the lower input costs, the water pumping cost being the major one.

Although last monsoon ameliorated the water level, the higher electricity cost desist growers to run the tube well pumps and most of those stand under utilized. Interestingly the electricity bills continue pouring in. We are constantly in struggle to make the government realize to consider this difficulty of farming community but to no avail. All the technical reports support our argument but the recommendations are yet to be implemented. If it gets the attention of those at the helm of affairs our issues can be resolve" elaborates Mr. Baloch. "Total consumption of Malir wells is only a meager 0.11 percent of KESC's total consumption. And KESC's total losses counted to be 30 to 40 percent."

"The local growers have forwarded many recommendations to the government to save this prosperous belt that includes the construction of retain wares on the Rivers on various points. Experience has proved that wherever these retaining wares have been built, those still have

the traditional affluence and prosperity. Old saying it is never too late to save the remaining semi-deserts. In greed and haste, they have tampered with nature to mint small money. Previously the water level was at 30 feet under the soil and at present 30 feet of soil has been lifted. Lack of bajri has minimized the water absorbing capacity of the land. Few years back tube wells were operated round the clock to pump up, but now-a-days, most of them are abundant and few remaining are operated for only five to six hours and the water pressure is also low therefore cost benefit ratio is totally imbalanced. The desertification of lands has deprived the people of their livelihood. Reti bajri mafia is biggest culprit with the logistic support of local administration. A number of locals are also in connivance with the perpetrators in this crime. Because in case they would not allow lifting of material from their lands or they would not allow passage from their lands mafia would not be able to continue this criminal practice.

The retti/bajri lifting is highly lucrative business for all involved in this criminal activity. There were about 50 lifting points Dhek's few years back in the vicinity of Malir Kathore in the eastward side till old Thano in Malir presently called as Mole River. There were about 30 points in Thado River from Damba Goth till Jamshoro District border lines. There exist about 10 points in Konker River, 25 points in Sukhan River, 10 points in Lah Karmatiani. In addition, there are more than 35 points in Langheji and Jarando Rivers. More or less, from 170 spots about 1200 trucks are loaded through triple trips, according to an estimate, from the local people. Local activists claim that Mafia pays Rs. 1000 to 1500- per truck to the local police and Rs.150 to 200 to the landowners, as road pass from their lands.

After a prolonged struggle by the residents and partially due to the posting of honest police officers the quantum of loading has decreased but still around 500 to 600 trucks are loaded by the mafia through their political clout and nuisance. Apart from this, FWO is also involved in loading more than 50 dumpers a day from Sukhan River.

Local collaborators of the mafia have around 80 to 90 trucks of their own. They have their own side of the story. One of them Mr. Faqueer Allah Bux Jokhio, an agriculturist himself, claims that, "When we had the employment opportunities in agriculture, we were happily engaged in it but for the last 20 years our agriculture has eroded, we can not cultivate our lands, we do not have any other option to earn livelihood barring lifting of retti/bajri from our lands and sale it in the market". He further reveals, "Material loading helps the local people and workers, laborours, dRivers etc to make both hands meet. The

business goes on and the Police is the only beneficiary of the ban on lifting. They extort Rs. 1000 each truck to turn a blind eye over the business".

When this point of view was expressed to Mr. Haji Pir Mohammad, a social worker and representative grower in Dur Mohammad village, he contradicted and rejected this argument "Those people are either naïve or ignorant. They don't know that about 4000 to 5000 workers depending on this illegal trade are depriving around two million people of their sustainable source of livelihood. However government should take necessary steps to provide alternative job opportunities to the owners and staff of that truck fleet so that they should continue their life with dignity. We can control this illegal trade at least by 50 percent through these alternative measures".

This trade has badly affected all sectors of the society in Malir Valley. Apart from human social fabric, the natural ecosystem and wildlife, flora and fauna stand disturbed. If we can not harvest water we can convert desert into a place worth living. For the last sixty years Karachi city has been established at the cost of Malir Valley. All the social, local and international laws have been violated in this regard with local people helplessly watching around at the mercy of the lawbreakers and outlaws.

The gravity of the situation can be ascertained from the estimation by the technical experts that natural revival of one centimeter surface level to grow the vegetables will require around 400 years taking all the variables constant.

A modern grower in Gadap, Haji Allah Bux Baloch opines in this regard, "In earlier days when the River beds were untouched and not dug, the River bed was only five feet lower than the land surface; therefore overflowed water used to flow over the lands and brought together natural soil. Farmers used to dig smaller trenches to trap and harvest the splash water. The natural soil was very fertile and multiplied its capacity. Farmers had a practice of digging small branches from the Rivers. The water coming from hill torrents, trapped in this sway was highly beneficial for the land and enriches and replenishes the exhausted nutrients. Unfortunately, now the River bed has been dug up to 30 feet deep therefore it is impossible that rain water reached to the surface level from where farmers could trap it."

Regarding the failure of government policies Mr. Haji Allah Bux Baloch and Mr. Haji Ghulam Mustafa regretted in these words "There are no arrangements or facilities by the government for Malir

inhabitants. We are doing every thing at our own. There is millions of cultivable land but there is no agriculture research center here or some government input supply store or facility to purchase subsidized seeds, fertilizers or engineering department to hire tractors, bulldozers and other heavy machinery. There was a center working but was maliciously closed 20 years back. That center was used to rent out drilling machines, bulldozers etc on discounted rates. The site of the center was razed, and the new Malir session courts have been built on that site.

As a result of shortage of water "people are compelled to sale off their uncultivable land to the builder mafia," revealed Mr. Haji Allah Dino Jokhio in Haji Sukhio goth." The agriculture farms are being replaced with the tall buildings and local people are pushed out to further interior areas. Farmers and land workers from these areas have shifted to other places in search of livelihood. Thousands of farming families from Deh Sharafi, Landhi, Thano and Malir to Thatta, Hub and Windar in Balochistan" He further reveals " The agricultural lands leased out to local farmers on 30 years contracts have been artfully merged in different residential schemes in Malir Development Authority (MDA) by the PML(Q) and MQM coalition government from 2001 to 2007. Thousands of acres are planned to capture and 12 Dehs of Gadap Town are proposed to be incorporated solely as residential areas through different schemes".

Deh Mokhi, Deh Nara har, Deh Shahi Chib and its vicinity that were popular for orchards and agriculture were incorporated in residential schemes during 2006. This kind of encroachment on rural areas has created unrest and frustration among indigenous people, especially farmers and cattle breeders depending upon livestock. They are harassed but angry over the conspiracy that has turned about 80626 acres of agriculture lands of Gadap Town as a part of main city.(See table)

Tampering with natural eco system, and the resulting destruction of agriculture, has not only drastically affected the farmers, but also thousands of families indirectly dependant on agriculture including livestock breeders, blacksmiths, potters, barbers, masons, mechanics, truck owners and workers, cobblers, restaurant runners, push cart venders, donkey cart operators camel cart and bull cart operators etc.-- all have been badly affected by this unnatural catastrophe. However, the worst hit are the women folk.

Previously, up till 1980s, almost entire population of Malir Valley depended on agriculture directly or indirectly. Even today, about 60 percent population depends on agriculture. Changing ways of life due to unnatural intervention in the natural ecology, have compelled people to change their traditional family professions and switch over to other activities and business. As already mentioned, some families have shifted to Thatta, Hub and Windar and the youngsters have departed for Middle East to hunt for jobs

The change in ways of life has brought with itself environmental pollution as side effect. Tampering with Rivers has ravaged the natural vegetation and forests and their beauty. Once Malir River had dense forests on its banks which have been cut down by the shovels of Reti Bajri mafia. The remaining trees and bushes were consumed for domestic cooking due to non availability of the natural gas for the local villagers. Now Malir has lost the orchards of Gauva, Dates, Coconuts, cheko, Banana and Mangoes. Wild life like foxes and jackals and hundreds of species of reptiles and birds also have migrated for good.

This state of affairs has rendered social ecology dangerously vulnerable and volatile.

The builder mafia has de-shaped the whole landscape with deep trenches and ditches all over the place with high noise pollution created by round the clock operation of the smoke belching shovels trucks and dumper groaning and honing all around day and night.

Industrial waste nowadays enters Sukan River off Chawkundi Graveyard. Malir River has already turned into a gutter canal from the bridge till the end. Thado River faces same fate from Malir, Khokhrapar, Soomar Kandani Village till the end. In Deh Landhi, when farmers could not cultivate the land, government allotted those lands for ill planned establishment and expansion of factories. Erection of such industrial estate has created mess and caused spread of dangerous diseases in rural and urban areas due to poisonous and toxic chemicals.

Due to this poisonous waste seepage, the underground water in the remaining agriculture wells surrounding Dehs of Thano and Landhi has been contaminated causing numerous water-borne diseases. The agriculture products grown on that water, especially vegetables on the banks of these Rivers are supplied to the city also cause large number of stomach and intestinal diseases. Hepatitis B and C are increasing in these areas. SEPA, the government agency for environmental protection, reports that the vegetables grown on the

drainage water are contaminated with toxic industrial chemicals around these Rivers which is highly injurious for human health and must not be consumed.

Haji Liaqat Ali Jokhio, who is mobilizing masses against the dirty water of cattle colony Nagori Supper High Way, opines that "This contaminated water flow into Bazaar Nai from where it goes into Malir River is poisoning the wells in its vicinity. This is badly affecting the wells within ten kilometer radius of populated area. The villagers also consume this water for both domestic and agriculture purpose. The Damloti wells are also located in that area." The decreasing underground water allows space to sea water seepage and the water from these wells is going salty and situation is turning dangerous.

In addition to the new thermal power plants, Karachi has five large industrial zones with thousands of factories. The poisonous waste of all those industries is spewed through Malir and Lyari Rivers to the sea. The poisonous industrial waste contains large quantity of sulfate, calcium, ammonium, broadax mixture, magnesium, iron oxide, toluene chloride, alkali, salts and many poisonous minerals.

According to one estimate, daily about 280 million gallons of untreated solid and liquid matter flows into sea through different channels. It includes untreated industrial and domestic waste, plastic bags and other waste. This is badly polluting the sea. Our careless attitude is, on one hand, damaging Malirs' beauty and natural resources and the marine life on the other hand. The forests are degrading very fast. This has rendered coastal line exposed to the sea erosion and lies undefended against the cyclones.

Mr. Allah Dino Panhwer of village Hassan Allahdino Panhwar in Landhi in a nostalgic expression remembers recent past "This village was a beautiful place till 1970s surrounded with lush green dense trees. For its closeness to Sukhan Rivers there was no issue of water for consumption and livestock. Food was abundant for easy availability of fresh vegetables and employment was easy on agriculture lands. Sprawling grazing fields were accessible to livestock farmers. They used to load milk drums in local trains to supply to the city. Caravans of camel carts loaded with fresh vegetables regularly headed towards vegetable market located in the Lea Market. Disease and illness cases were rare and hardly reported. Now it sounds a dream. Now the village is surrounded with factories. Their noise and poisonous smoke and their waste that pass through gutter from the center of the village into the Sukhan River has rendered more than half of the population sick and

infected with variety of the diseases" Further " They have established factories on our lands, deprived us of our livelihood. The people from other provinces have been employed in these factories. The whole area has been occupied by the illegal settlements. This encroachment has also disturbed our social fabric. It has destroyed the peace and serenity. Robbery, theft, snatching and kidnapping for ransom have become the order of the day. This, coupled with unemployment, frustration and drug abuse has created youth delinquency and they have started indulging in criminal activities".

Failure of Concerned Authorities to Protect the Community Livelihood

Various departments and autonomous bodies are responsible for employment and agriculture in Malir. Among them, provincial Departments of Agriculture, Mines, Wild Life, Revenue, Environmental Protection Agency, Police Department, Local Government and Agriculture Departments of The City District Government, Malir Development Authority etc are supposed to manage the affairs. Unfortunately, it is these departments that are responsible for the mess and mismanagement because of their utter negligence and corruption, if not malicious intentions.

Mr. Gulam Murtaza Baloch, Nazim Gadap Town, an agriculturist and affected from the disaster, narrates that "had all those departments performed honestly such a catastrophe would have been avoided and millions of people would not have lost their livelihood. In the past, The Provincial Agriculture Department had ignored Malir in their policies. Even now, if Provincial Agriculture Department, Agriculture Section of The City Government, Environment Protection Agency, Mineral and Wild Life Departments start performing responsibly, the situation can be somehow ameliorated. They should reconsider their strategy, and classify this area as agriculture belt and design projects accordingly the employment opportunities of the people can be revived."

He further suggests "At the town level policy making if we follow the recommendations from farming society, if the agriculture, wild life and mineral departments adhere to the laws and design more effective laws against the lifting of retti/bajri, we can protect the livelihood of remaining

population. Rettei /bajri is item related to Mineral Department but it has no role in this area. Instead, The Department itself plays a culprit by allowing lifting of the



stuff by issuing special permits, leases and licenses. The estimates of loss are immeasurable. On one side, the mafia and on the other, locals have been cutting the trees to fuel their kitchens due to non-availability of the natural gas for domestic use. The Environment Protection Agency seems silent spectator on whole scenario. Same is the case of Wild Life Department." He further adds, "The agriculture department of City Government has budget in millions for the purpose but to no use for the farmers as the policy makers in these bodies have neither interest in nor knowledge of the agriculture. The budget is diverted to the Farm Houses which are commercial recreational places not the production fields. Adding insult to the injury, The Malir Development Authority (MDA) is ruthlessly acquiring these lands to be incorporated into housing schemes, as a result, depriving the local population of their bread and butter. To resist this phenomenon the concerned civil society, elected representatives, growers, peasants and students must come forward, otherwise the above-mentioned departments will further obliterate Malirs' existence and we are bound to lose the remaining resources."

Mr. Ghulam Mustafa Baloch, Regional Director, SPO Sindh, argues that "Local leadership can not play effective role due to the lack of knowledge, writing, presentation, managerial and negotiation skills. There fore it is the need of time that the local leadership, social workers should be trained in these skills through a comprehensive capacity building program so that they should emphasize and pressure government Departments to fulfill their responsibilities through accountability process. Because most of the executives in these areas even do not know that Karachi suburbs have considerable agriculture, livestock farming, and that millions of people are engaged in Agriculture for employment".



Mr. Ghulam Hussain Jokhio of village Kamal Khan Jokhio, who also leads the group of the local farmers in New Fruit Market and is actively campaigning for the share of the local people opines, "New Fruit market on Main Super Highway is the largest one in

Asia. People hoped that after establishment of this fruit market, they will be having their own shops and the role of middle men will be finished and the growers will be able to fetch good price for their products. They will be able to save their marketing costs. They also hoped for good employment opportunities for the local youth but their expectations failed. Local growers were promised quota in the allotment of market shops and Rs.30 million were collected from them as allotment fees but 75 percent growers are yet to take the shops despite the payment of costs. There allocated shops have been illegally occupied by others. Each shop is reported to have been allotted to four or five persons simultaneously. Office bearers of The Market Committee are reported to be minting money through this intriguing situation. The shop keepers and the commission agents went to court against this injustice but to no avail. A powerful group has been controlling the premises and The Market Committee seems to be literal hostage against this group who has been violating the court orders". He adds "The background of allotment of shops to growers was that management intended to, minimize the role of commission agent, to nullify the monopoly of no commission agents and creating an opportunity for the farmers to fetch good price by selling it themselves. The intentions were positive but these were deliberately sabotaged by the people with vested interest. Moreover, instead of hiring local youth, people from Bajor and other parts of NWFP were brought and hired in the Market. They have artfully deprived others through organizing their trade unions. No one can enter the market now without the approval of that union. This is utter injustice to the local community. He demanded that local people should be allowed to organize their own trade union and others should be given representation quota. This lies under the powers of The Market Committee to decide"

Mr. Abdul Rehman Memon of Memon Goth, who represents local growers, opines that "According to bylaws of Sindh Government, all over the province, the Market Committees should consist of eight members each from the farming community, and the chairperson also has to be a farmer. In the clear violation of this law, since the very inception of Market committee, a government official has been appointed as administrator instead of election or nomination of a chairperson to look after the affairs of market committee. All over the province, the committees are formed and elections are held to select

the representatives but Karachi Vegetable Market has been handed over to an administrator for the only reason that the majority belongs to the farming community. How come an administrator having no knowledge of agriculture can benefit the farming community?"

He complained "We have protested on every forum but no one heeds to our legitimate demands. We expect that new PPP government will reorganize the market Committee; local people would be handed over their allocated shops and through effective measures, Malir agriculture would be saved from total extinction".

Due to loss of agriculture, the farmers of Malir have started looking for new professions to sustain their lives. The most important one in those new professions is poultry farming. Large number of growers has chosen to opt for poultry farming and in some case continues agriculture and poultry farming simultaneously.

Mr. Muhammad Saleem Baloch and Mr. Dad Rahim Baloch, two Aarathi /commission agents who have successfully switched over from farming to poultry opine that "Around fifty percent of those formerly engaged in agriculture are now involved in poultry farming business. Previously the commission agent/Aarathi profession was sole domain of people from Punjab. No local person had joined this profession. Despite lack of resources now ten local growers have successfully entered in the field as Aarathi/ Commission agent in poultry farming. In case government concentrates on development of poultry profession, and if poultry feed and medicines are provided on subsidized rates and reasonable marketing opportunities are provided to people of Malir, they will be having a sustainable employment sector and better of economy which will result in a peaceful and prosperous society". They further elaborate "people found a good livelihood in poultry farming but due to the careless and neglectful policies of government this industry too is losing its prospects. Costly feed and medicines causes heavy cost per flock and unstable market at times causes loss of millions to the poultry farmers"

Well known poultry Aarhi Mohammad Saleem Baloch opines, "Till the agriculture is brought back to the previous scale, the government should encourage the farmers to invest in the poultry sector. The Government should provide easy loans on flexible terms and rates, ensure stability in price of medicines, feed and chicken meat, weekly fixing of meat rates in consultation with the poultry farmers, and poultry Aarhis so that they do not suffer losses." He suggested to the locals involved in the theft of retti/bajri that they should do away with that practice and better switch over to the poultry farming which is reasonably lucrative business"

MALIR'S CONTRIBUTION IN PAKISTAN'S ECONOMY

Natural resources, human resource Development, Education and Technical skills, planning and management, product access to marketing, good governance peace and social stability etc are the fundamental factors for development of a country or of a nation.

During British era the then rulers used to call the rural Karachi as a green belt and compared it with Kashmir. The area had abundant natural resources, green fields, fertile lands, Rivers and forests. These lands provided fruits and vegetables to fulfill the needs of the Karachi cosmopolitan till 1980s and played important role in national economy.

By lifting reti/bajri from the nearby areas these lands have been destroyed and converted into desert. This exhausted national wealth and proved lethal for agriculture based economy. Now in case government desires to revive the situation it would require investing billions of rupees to revamp agriculture in Malir.

The sand lifting has caused deepening of water level and contaminated the water rendering it harmful for human consumption. The destruction of the forests has not only disturbed the ecology in the vicinity but also exhausted the major source of water supply to Karachi. According to Mr. Abdul Hakim Baloch, former provincial minister, "Before Pakistan came into existence, Malir Market, vegetable market in Lea market and dairy markets were controlled by the people of Malir. After establishment of Pakistan, markets and trade in Karachi never remained in our control. After Field Marshal Ayoub Khan took over, new vegetable market was established in Gulshan-e-Iqbal, Large number of people from NWFP were shifted and given control of the vegetable market. Those people had no link or experience of agriculture. Local businessmen from Khoja, Baloch, Jokhia and Memon communities were eradicated from this business. Total supply of the milk and Dairy originated in Malir and this profession was dominated by Jokhias, Gabols and Panhwar communities. They were major suppliers of leather and wool to the related industries. When the Nagories migrants from Punjab, they took over this business the locals lost this business too." This was also important source of earning for the government treasury. Depletion of agriculture and grazing fields also affected these sources of government income. The important sector of wool and hides supply has also vanished.

Once, the Papaya and Banana of Malir was supplied to the fruit markets in Lahore and other parts of the country. Even the Papaya

and berries of Malir were exported to Middle East and the Gulf countries. It was a major source of foreign exchange earning. The private employment was easy and abundant. Government did not need to invest in the creation of employment opportunities, on the contrary today government have to invest considerable funds to create employment opportunities”.

He narrates further “Even these days The Government earns billions from Malir through realizing revenue from Agriculture, poultry farming, Dairy farming, farm houses, two cement factories named Lucky Cement and Pakland cement, Steel Mill, Port, Bin Qasim Industrial Zone, Airport, and fisheries in Ibrahim Hydri. If government in return invests one percent of its revenue, the situation could have been far better than this sorry state of affairs.”

Mr. Syed Khuda Dino Shah, elected councilor from Bin Qasim Town and the leader of Malir Bchayo Ithad (Save Malir Movement) states “Before the current local government system, the rural areas of Karachi annually contributed Rs one billion and 180 million revenue through octroi tax, and export taxes till the year 2001. Local people were deprived of their lands for the establishment of Steel Mills and Port Qasim Authority. In 1974 around 18660 acres were acquired for Steel Mills. According to revenue record those lands were owned by 500 landowners. In addition 200 farmers had leases in that area. Round 15 villages were affected and obliterated. Similarly back in 1973 for the establishment of port Qasim Authority 20000 acres of coastal area and 15000 acres of agricultural lands were acquired owned by around 535 landowners. The Port Qasim Industrial zone contains more than 100 factories. These sectors are the backbones of Pakistan's economy.

The irony of the situation is that the Malir is earning billions of rupees but its population is not benefiting from the development trickle down effect. The rationale is the consideration that the development planners and economists should adapt the logical policies that the livestock and agriculture sectors in Malir are revived and the greenery and prosperity is reengineered on sustainable basis.

Poultry farmer Mr. Mohd Saleem Baloch states that poultry and Dairy industry is gradually developing in Malir. Despite the fact that government earns about a billion rupees a year only from poultry farming, this sector has been neglected. The income from this sector can be multiplied with due diligence and placing it as a priority agenda”.

The livestock breeding is still significant profession. In addition to cattle colony and Dairy farms on Mokhi Road and Super highway, Dairy farmers and cattle farmers are privately maintaining the flocks in thousands of goats, sheep, buffaloes, camels and cows. These flocks are a important source of earning through wool, milk and other dairy products.

This industry too is neglected in the government policies and the farmers have been doing all their professional activities without scientific research methods and support from the government quarters. If government organizes the vocational trainings for the farming community on scientific basis this industry can thrive and will be a major source of income generation and employment.

Apart from this, there is vast a handicraft and domestic cottage industry managed by the women. This is the remarkable manifestation of indigenous and traditional skills uniquely performed by the individual female entrepreneurs at their homes. If organized on scientific basis, this would be an important income generation activity for local women on one hand, and a source of revenue for the government on the other hand.

Further, medicinal plants and naturally produced herbal products like fine and expensive natural glue from Ghoghar, wild berry, seasonal mushrooms and Lyar also are a source of income. Malir mountainous area contains large number other herbal and medicinal plants required by herbal doctors and related shops can be a source of export earnings as those are in high demands in other countries particularly in Far East and Gulf countries. Only an effective marketing strategy is required to publicize these products.

Although in a shabby condition, even these days, agriculture generates handsome revenue to government authorities.

Table No. 2 shows the income of Gadap Town during the years 2001-02 and 2002-03. Revenue record shows that good income was generated despite the fact that this period was classified as famine or calamity-affected period. The table also presents the data regarding the ratio of cultivable area in 51 Dehs in Rabi and Kharif both seasons.

IMPACT ON WOMEN'S LIVELIHOOD.

The decrease in cultivation of crops, fruits and vegetables has badly affected women of this area as single group and they are worst hit as compared to men. The picking and harvesting of almost all fruits and vegetables were done by women. In addition, transplantation, cleaning etc were sole domain of women. Decline in agriculture production has deprived women of all such related jobs.

Irony of the fate is that contrary to the man who can go to other places and sectors in search of employment, she faces difficulty in mobility due to the social norms and traditions. They used to work on the fields and orchards either as sharecroppers or as a wage laborers and also collected grass from those lands for their cattle. They had plenty of milk, yogurt and butter. For some women the milk was source of income through sale to other families. Although their wages were low still they were happy for the reason that employment was available near their home. Most of the women were self sufficient in meeting normal domestic expenditures, food, clothing and they used to participate and enjoy the events and celebrations in family and neighborhoods. They had enough vegetables and milk therefore overhead costs per home were minor. Therefore, on the whole, their life was reasonably comfortable.

However, after gradual degradation of resources, the males started heading to the other places, but the women remained restricted within their vicinities. Only few women hailing from labor classes started working as domestic servants for the rich families.

Industrial units were very far and lack of transportation facilities restricted their mobility and it was near to impossible for them to access those factories for jobs. Due to the shortage of grazing fields and non availability of fodder and grass, They were compelled to sell their domestic animals.

There was no tradition of applying for Zakat funds up till 1980-1983. It was socially unacceptable to depend or look for Zakats. The degrading economic situation has rendered about 30 percent of



Women and about 20 percent of men to beg for Zakat and pay repeated visits to Zakat offices with the hope to receive some funds for partial compensation of the day today domestic expenses. The worsening situation implies that this percentage is bound to increase in the future.

Ms. Rahmat, a sharecropper in a field in Gadap, narrates the real life story as "Last ten years were hard and difficult because of non-availability of work, and we lived under terrible conditions of poverty. Now, since 2007, a Dam has been built near the village which has resulted in revival of the wells and these wells have now good quality level water on reasonably higher level Today, it is far better as compared to the past". She looked happy while picking Brinjal in her field along with her son. She added that they had their own land, where she used to work with her brothers and late father. But for the last 15 years, those lands became barren for lack of irrigation water. Now they have water supply for few hours but to restore the electricity connections for the tube wells hundreds of thousands of rupees are required which is unmanageable for them."

The village Radho Jokhio solely depends on agriculture for livelihood. However, last 10 years have been very critical for them too. Women of this village face the same fate as the women of other areas in Malir. Women have been compelled to look for other options for employment. About 25 women from this village work in the Fatima Hospital in Baqaiy University located on main super highway. They are paid monthly salary between Rs.1500 to 2500 only. Around 0.3 percent women from Gadap finding no other option, have started working as domestic servants for everyday chores like washing and cleaning.

Ms Hajiani Mah Bibi in Haji Yousif Village Darsano Chano works in the field even at the age of 70 years. She mentions that she is attached to agriculture since her childhood, initially with father, then with her husband and after the death of her husband she independently supervises the lands. She regrets that shortage of water has caused considerable decrease in production. Mango orchards have died. Around 50 women used to work in the fields but at the moment only 15 work due to less labor demand and shrunk fields.

Every cloud has a silver line. There has been considerable development regarding female education during last few decades in Malir. The NGO named Wadhela Baloch Welfare Organization in Dur Mohammad village, in collaboration with Sindh Graduates Association, took initiative in this regard. They started their female wing for the

women welfare and empowerment. Their experience encouraged welfare organizations in Old Thano, Memon Goth, Deh Landhi, Kathore and Gadap and, as the result of this positive development, a large number of rural girls have passed Matriculation and Intermediate Examinations. The higher education is costly; there was large number of male graduates unemployed as since many years rural people do not have access to the employment opportunities. As a result, a number of unemployed female has increased the unemployment figures. This state of affairs caused considerable frustration and the previous tempo of female education has slowed down.

Ms. Noor Jahan, Lady Health Worker in Haji Arzi Baloch village expresses the situation as: "During the first tenure of Shaheed Benazir Bhutto, large numbers of rural girls were engaged to health field. Even today, many of them continue their job with honesty and commitment, despite the lack of facilities and monetary benefits. All these jobs are on fixed salary with renewable contracts therefore lack job security. Recently Prime Minister Yousuf Raza Gilani has announced the minimum wage at Rs. 6000/ but this announcement has not benefited the lady health workers who are still paid Rs1500 per month."

District Council Karachi Established 45 vocational and handicraft centers and employed lady teachers and female peons during the period from 1994 to 1998. They are still working on the same old contracts and are not yet regularized despite the service of 14 years. They are not entitled for the retirement benefits.

Ms Malika Baloch, a worker at vocational school in Hussain Baloch village Gadap complains, "I am employed and working since 1996. I have been hoping for the regularization for the last many years and I have paid thousands of rupees in bribes to higher officials but to no avail." According to her, she had farming background, she used to work on fields with her maternal uncle but shortage of water exhausted that profession and she was compelled to apply for and join this job".

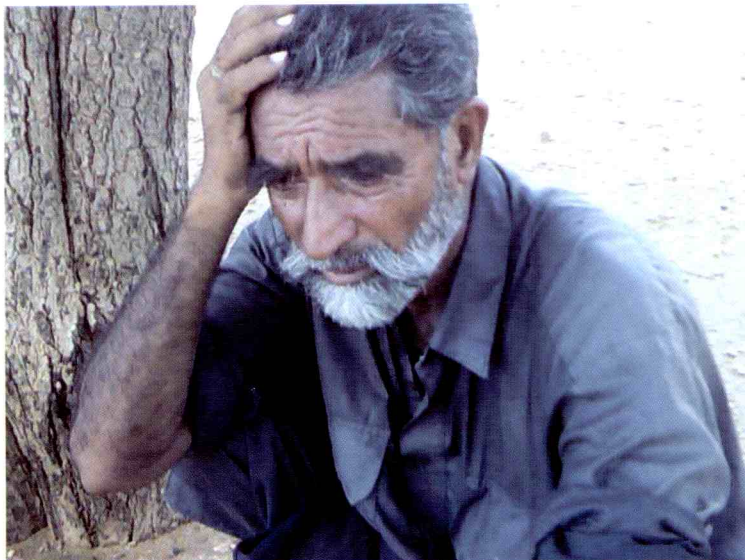
She regrets about the situation at training centers. All the women working in these centers are facing similar difficulties. For the last 10 years even examinations of the students have not been conducted. These training centers are taken over by the City District Government that has rendered them useless. The training courses are not useful for the trainees. Neither the examinations are conducted nor is any certificate provided as an evidence of training so that they can apply for some good jobs.

This utter failure is either due to poor planning and inefficiency or ill intentions of the high ups. The tragic aspect the women face in these jobs is that the female workers are harassed, exploited threatened to be removed from jobs and on such pretexts every month Rs100 to Rs200 are deducted as bribe. Same circumstances prevail in education and health Department too.

Large number of women in Malir is engaged in sewing and stitching profession. Apart from stitching the family dresses they stitch the clothes of other families and also design beautiful rillys, knitting embroidery, colorful plow covers, local knitted salawar belts called agath (azarband) and they also prepare brooms, bags etc. Despite all that struggle and painstaking works, they are not compensated properly and they do not receive appropriate wages for all that hard work. Due to the lack of support, all the professional activities have been limited to the rural villages only.

Mr. Nawaz Ali Baloch, a social worker, reports that "in Malir, Gadap, Darsano Chano and Landhi, women prepare beautiful Balochi embroidery, and a dress fetches Re.3000 to Rs10000 in urban areas. However, the lack of encouragement and support this profession too stands restricted to the villages only. Lack of marketing, displays and advertisement etc is resulting in extinction of this unique profession very fast. Proper investment, support in this sector followed by ensured marketing can revive the employment of half of women in this area".

The wool from sheep and goats and is utilized for the best quality hand made carpets and ropes. Therefore workable projects should be designed to compensate the damage caused to agriculture sector



which has drastically affecting lifecycle and lifestyle of the women in rural areas of Karachi city.

The rural women have been deprived of even normal medical facilities. Only three mother and child care centers are

functional in Bin Qasim Town and Gadap town but those too are near the urban areas and far from the villages. In Malir rural with population of about 1.5 Million there is no mother and child care center.

In addition, the women should be encouraged to enroll in vocational and technical education centers, and they should be given jobs in teaching and health sector. Apart from this, handicraft and stitching skills should be given special attention in Malir area. These arrangements would help relieve the women of Malir from the psychological stress caused due the disturbance of socioeconomic fabric in the society.

DESIRED ACTIONS AND COMMUNITY RECOMMENDATIONS

During the field visits and discussions with the farmers, women activists and social workers following suggestions and recommendations were put forward by them based on their experiences and considering ground realities.

Mr. Mohammad Saleem Baloch, a poultry farmer, recommends that, "before the government plans to revive agriculture sector, it is advisable that government should encourage poultry farming and dairy farming, through farmers' access to financing on easy terms and conditions including low mark up. Most of the farmers have their own lands and they can establish their own poultry farms. Although irrigation water is not enough for agriculture, it would be sufficient for the poultry farming. And they can improve their living through the income generation in this sector. There are more than one thousand poultry shades in Malir and at present about 50 percent of Malir population is directly or indirectly linked with poultry farming". Mr. Dad Rahim Baloch adds that, "government of Sindh should follow the practice of Punjab government and provide poultry feeds and medicines on subsidized rates. This way poultry industry can be saved and further developed. In addition supply of poultry birds in Karachi and other districts from Punjab should be banned so that the local farmers can get good market price to make this sector as sustainable industry. By equipping the farmers with latest poultry technology, skills and facilities the agriculturists and livestock farmers can be attracted and mobilized to opt for this industry. The women in the area are also entering poultry farming and they must be encouraged to come forward and make a dignified livelihood for them. Malir's climate is highly suitable for poultry and dairy farming". The elected representatives, government bodies and concerned quarters must play a responsible role for the development of both these sectors.

Haji Allah Bux Baloch ,a progressive grower opines that, "through the installing of Drip Irrigation System, agriculture sector can be preserved from destruction. He claims that water used in one acre these days can be utilized for five acres through Drip Irrigation System a large quantity of water can be saved from wastage. In addition, on each irrigation nowadays one sack of Urea fertilizer is used but after introduction of DRIP irrigation only four kilogram per acre will be sufficient. The main reason is that the drip irrigation does not require large trenches or branches for irrigation in vegetables and orchards. Experience has proved that excessive irrigation weakens the roots of trees and plants as result the production is not optimum".

Haji Ghulam Mustafa Baloch, who successfully used drip irrigation to grow fruits like Cheko, Berry, Papaya and birinjal, karela states that about Rs.125,000 per acres are required to install DRIP system for vegetables and Rs. 50,000 investment is required for the system in orchards. Federal government has introduced a policy through which they offer that farmers should contribute share of Rs.85000 per acre in vegetables and Rs. 35000 per acre in orchards and government would contribute remaining cost. This high portion of cost per acre is unbearable by the farming community who is already exhausted under heavy electricity charges and degraded lands. Farmers can afford to pay only 10 to 12 percent of share on these projects and government should plan accordingly".

The government should acknowledge that the farmers in Malir Valley invest considerable amount on pumping up water from wells after investing considerable expenses. This cost is considerably higher than in the other parts of the country. Realizing this fact government should provide discounts and subsidy to the farmers of Malir.

Haji Allah Bux mentioned that EDO Agriculture in City Government has a project to provide free of cost drip system to the growers. But unfortunately, this plan has failed due to red tapism, lethargy and corruption and the growers could not benefit from this scheme. The bribe is unbearable for the poor growers. The sole beneficiaries of this system are the non farming, commercial farm house owner urban businessmen. They have the contacts and clout to prevail and they collaborate with the bureaucracy and by greasing their palms of decision makers in the City government and maneuver situation in their favor. These farm houses earn millions of rupees every month as they have tax holidays. These fictitious farmers and the officials in agriculture department of City Government have given the benefits of the drip system to these so-called farm houses. This is flagrant injustice to the real farming community. Therefore it is high time for the Government to redesign their strategy and the drip facility should be extended to genuine farmer in consultation with the farmers' representative body, Malir Aabadgar Welfare Society.

The sub offices of The Agriculture Department should be opened in Gadap, Kathore, Darsano Chano, Memon Goth and Deh landhi so that genuine growers can access and get benefits from this scheme.

Mr. Parwiz Baloch, an educated grower of the area recommends to establish two agriculture provision centers in Gadap so that the farmers

can avail all facilities from sale³ of fertilizers, seeds to hiring of farm power machines like tractors, drilling machines and bulldozers on subsidized rates. In addition, he recommends establishing and information centers in the area by Sindh Agriculture University and Agriculture Research Center Mirpukhas. They should conduct awareness sessions and gatherings so that the local farmers including women should be invited in these gatherings. The awareness topic should include the agriculture farming based on rain water and canal irrigation. In this way women should be empowered to express themselves. He regretted that The Government has withdrawn most of the subsidies which will further aggravate the situation. The Government should continue these subsidies especially on fertilizers, otherwise farmers will no more be able to continue sowing of the vegetables.

Mr. Shafi Mohammad Baloch and Haji Pir Mohammad have recommended that The Government should fix the rates of fruits and vegetables on seasonal basis. The growers do not get reasonable price despite facing and suffering the natural calamities, cyclones, draughts etc. The Government should compensate for the losses suffered by the farming community. They also recommend charging subsidised electricity bills, revenue, and irrigation taxes. By offering these incentives we can achieve the revival of agriculture sector in Malir and Gadap on sustainable foundations. In addition, the women of the area should be given adequate quota in government jobs. The Government should also arrange the facility of dairy farming for the women so that the affected women could overcome the psychological stress they are under going at the moment.

SOME EFFECTIVE MEASURES AND A RAY OF HOPE

Mr. Abdul Hakim Baloch, during his tenure as Chairperson District Council Karachi, raised the issues pertaining to farming community in Malir and Gadap on all the important forums. After successful campaign by the local social activist groups, local representatives, The Irrigation Department, Government of Sindh, Union Council Darsano Chano, and District Council Karachi started a Dam on Thado River in Gadap, an artificial lake in Jam Goth and Mulla Eissa goth. These schemes faced a lot of resistance by the opponents. But due the perseverance and mobilization of the local campaigners under the leadership of Hakim Baloch, these schemes were implemented and at the moment the Thado Dam has been completed successfully. This dam has the capacity to store 17110 acre feet water. As a result, 20000 acres of land have been reclaimed successfully and are being cultivated these days.

Table: DETAILS OF THADHO DAM OVER THADHO NAI AT RD 6.5

1	Designated Discharge	16200 cusec
2	Storage Capacity	17110 acre feet
3	Length of Spill way	300 feet
4	Crest level	415
5	U/S and D/S bed Level	378
6	Ground level	386
7	Maximum Water level	421
8	Top of Dam Level	424
9	Area to be Benefited	33730 acres
10	Cost of the Project	650 million rupees

The exhausted wells in the area have been revived too. This precedence encouraged Mr. Murtaza Baloch, The Nazim of Gadap Town who initiated four check wares. These include one at Damloti on Malir River, second on Jarando River in Kathore, third one on Kurkutti Nai in Gadap near Arzi Baloch village and fourth on Lah River at Karmatiani in Gadap. This initiative face strong resistance from the previous government when initially tenders were called, how ever because of the popular campaign they were approved conditionally and after change in design and decreasing proposed budget for the project. The experience was highly successful and during the monsoon in 2007 all the Dams Retention ware were filled as result it replenished underground water storages and revived the closed wells which were redundant for the last 10 years.

Mr. Ali Akber Jokhio of village Radho Jokhio expresses his observations about Kurkutti retention ware that the lands which were uncultivated for the last 10 to 15 years are brought under cultivation and that resulted happiness and prosperity back in the area. This check ware has revived 12 well and 6 out of those run for round the clock and provide abundant water. Author himself hailing from the same area agrees with the contention and have witness the situation as elaborated. This water recharging has helped cultivate about 1000 acres of land and earns livelihood for 1500 families including womenfolk.

Haji Allah Bux Baloch recommends that Government Departments should provide information and skills through extension services to the farming community regarding water conservation practices on one side on the other they should be educated regarding the crops that require smaller volume of water and sustain the draught in case of shortage of rain.

In addition to the drip irrigation, sprinkler system and Bubbler systems can also be introduced which would be suitable in the area to compensate for the shortage of water. He further recommends that it is indispensable to establish check wares on Malir River. Experience proves that the check wares established by The Government of Sindh, Gadap Town, Drought Emergency Relief Agency, Public Health Engineering Department have been very useful and productive. Therefore it is a must for City Government to play responsible role in the rural areas".

Mr. Ghulam Hussain Jokhio, an activist in village Kamal Khan Jokhio informs that the Sub Mezcible pump used in this area is very costly in local markets. These pumps are available in the neighboring countries India and Iran on much lower cost. Those should be imported and provided to farmers so that they could affordably cultivate their lands with minimum overhead costs.

ALTERNATIVES & RECOMMENDATIONS

1. Although it is almost impossible to revive the natural ecology of the area as it has been badly damaged far from rehabilitation. However, the experts opine, and their proposals have been proved successful, that the establishments of retention check wares, and dams on different Rivers and hill torrents can some now compensate for the loss suffered. Check wares build by Irrigation Department, DERA and Gadap Town have been very successful and fruitful. They have recharged underground water and replenished the natural wells on one hand and simultaneously have helped retention of Retti/bajri. The Government should, therefore, plan and join hands with these departments to increase the number of such Dams/Check wares and on the other proper look after and maintenance of these wares.
2. The rates of electricity charges for the purpose of agriculture should be revised. Bills issued against the closed tube wells should be waived. KESC should fix the flat rate for tube wells in the range of Rs. 4000 to Rs. 8000 per tube well taking the horse power as indicator fixed on each tube well. This will provide relief to the farmers and they will be able to concentrate on their profession.
3. The Agriculture Departments in City government and Sindh Government should classify Malir as an agricultural area like other rural areas and they should introduce and establish extension and field offices, provide information and awareness services, through training and discussion forums, deliver subsidized fertilizers, pesticides, seeds, poultry medicines and water conservation technology.
4. Shops allocated to the farmers in the new fruit and vegetable markets should be handed over to the growers, so that they can sell their own products and the role of middle man can be minimized. In addition, job and labor opportunity to the local should be ensured for the locals.
5. Poultry farming and Dairy farming must be encouraged. The growers, especially women should be encouraged and facilitated to establish Dairy farms and poultry farms on vacant lands. Finance on easy terms and conditions should be ensured

for such aspirants. They should be properly linked with the concerned departments with coordinated efforts.

6. As the women have been worst hit due to the water crisis, it is indispensable that the concerned authorities should take necessary remedial steps to improve the situation. They should be properly equipped to and facilitate to produce handicrafts on commercial scale and their goods should be properly introduced, displayed and advertised for sale.
7. Local girls should be employed in local schools, training centers and health centres.
8. City Government should desist from acquiring further agricultural lands for the housing schemes. There should be a ban on the sale of agriculture lands. The agriculture lands should be leased to the farmers for 99 years instead of 30 years as per practice in vogue.
9. There should be research on the alternatives of use of retti/bajri in construction work. Formerly building works were carried by using bricks in construction. Brick kilns can be established towards Thatta side and bricks prepared can be used for the new construction in Karachi. This practice should be introduced and implemented by enforcing new laws.
10. The indiscriminate construction in Karachi has caused increase in population. Important reason of population explosion in Karachi is attraction for the employment from the areas lacking job opportunities. Government should introduce new industrial zones in other parts of the country to stop this internal labor migration. This will minimize the construction requirements.
11. Industrial units should be introduced in each town, tehsil and union council to provide people with jobs in their vicinity. This will minimize internal migration and pressure on urban areas.
12. A large number of housing schemes in Karachi remains incomplete for example, KDA Scheme 33. The builders are establishing new schemes while leaving the old schemes half complete. They have been unnecessarily encroaching upon the rural areas. To fulfill the requirement of accommodation, The

Government should enforce the law to complete the old scheme and permits for new residential societies should be restricted forth with.

13. Alternative of the cement, based on the experience of other countries, should be worked out. If concrete and lime white (choona) should be replaced with retti/bajri and gradually the retti/bajri should be banned.

CONCLUSION

Through these measures the Rivers can be saved from turning into desert and Malir Valley can be gradually revived to the level of former level of agriculture cultivation and prosper place. This will contribute to control environmental pollution. It is high time to educate people about the alternates of retti/bajri, effectively implement ban on its lifting. The cutting of the trees should be discouraged, systematic drainage should be worked out, illegal factories should be banned and environmental laws should be effectively designed and implemented. Real and sincere implementation of Pakistan Environmental Protection Act 1997 would go a long way to fetch fruitful results. The government, civil society and NGOs can take combine efforts to ensure the comprehensive and effective results in this regards.

Far the last century our planet is suffering environmental pressures. Indiscriminate and excessive use of resources have disturbed and exhausted natural ecological system. Population explosion first damaged lands and forests. Excessive consumption demands of food, housing, industries resulted cleaning of forests and exploration of oils caused tampering with the mountain ranges, sea waters, frozen seas as a result human beings, birds animals, wild life flora and fauna all—all have suffered.

Greed for maximum production has brought excessive and indiscriminate use of toxic chemicals and inorganic fertilizers that almost killed the lands. Lifting of retti/bagri has deserted the orchards, cultivated lands and killed the vegetation. Although the incentives of profit through excessive production has increased the consumable items but, at the same time, it has increased the poisonous smokes and chemical wastes that has polluted the breathing air with many harmful oxides and nitrates.

Introduction of industrial zones have brought large size of population to this area that was bound to create ethnic, lingual and cultural rifts in the society and destroyed the communal harmony. This socio-cultural pollution drastically changed the social infrastructure locally, regionally and nationally as a result we are living or suffering in pathetic and unbearable circumstances.

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Hajiani Mah Bibi, village, Haji Yousuf, Darsano Chano on 17 October, 2008

Mst Malika village, Hussain Baloch, Gadap on 23 October, 2008

Mst Rahmat village Radho Jokhio, Gadap on 28 October, 2008.

Mst Zohra, village Haiji Arzi Baloch, Gadap on 28 October, 2008.

Parvez Baloch, Village Gajan Khan, Gadap on 23 October, 2008.

Ali Akbar Jokhio, Villagr Radho Jokhio, Gadap on 28 October, 2008.

Mst Noor Jahan, village Haiji Arzi Baloch, Gadap on 28 October, 2008.

Nawaz Ali, village Haiji Arzi, Baloch, Gadap on October, 2008.

Mohd Saleem Baloch, Village Haji Ibrahim Baloch, Kathore on 30 October, 2008.

Dad Rahim Baloch, Village Haji Ibrahim Baloch, Kathore on 30 October, 2008.

Haji Peer Mohammad Baloch, Village, Dur Mohammad, Darsano Chano

Shafi Mohammad Baloch, Village Dur Mohammad, Darsano Chano on 30 October, 2008.

Ghulam Mustafa Baloch (Regional Director SPO, Sindh), Village, Dur Mohammad, Darsano Chano on 30 October, 2008.

Haji Liaqat Jokhio, Damloti, Malir, Karachi on 31 October, 2008

Abdul Rehman Memon, Memon goth, Karachi on 31 October, 2008

Hussain Sagar, Shedi goth, Bin Qasim Town on 31 October, 2008

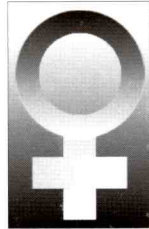
Syed Khuda Dino Shah, Razakabad, Bin Qasim Town, Karachi on 17 October, 2008

Haji Rasool Bux Baloch, M.D Malir Aabadgar Welfare Society, Gajan village, Gadap on 17 October, 2008.

Faqeer Allah Bux Jokhio, Sohrab Faqeer village, Songal on 02 October, 2008.

Ghulam Murtaza Baloch, Town Nazim, Gadap, Karachi

Eng. Shoaib Hanif, Dawood Engineering University, Karachi on 14 October, 20008.



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